

## **GP-6**

### **CONTROL OF MATERIAL**

#### **GP-6.01      GENERAL**

All materials shall meet all quality requirements of the Contract. In order to expedite the inspection and testing of materials, the Contractor shall submit for approval, in writing, to the County Engineer the sources from which the Contractor proposes to obtain all materials requiring approval, testing, inspection or certification prior to incorporation into the Work as soon as possible after receipt of notification of award of the Contract.

#### **GP-6.02      APPROVAL OF MATERIAL SOURCES**

The County Engineer will inform the Contractor as to the acceptability of each material source as soon as an evaluation of the sources proposed can be made. No material may be incorporated into the Work until approval of the source has been given. Where delivery of materials to the job site is made prior to approval, such delivery is made at the Contractor's risk and subject to immediate removal at no cost to the County in cases where it is determined that the source is not acceptable.

Material sources may be rejected even though prior samples meet the applicable Specifications where it is evident that the material tends to be of marginal quality as compared to the Specification limits in one or more of its properties.

All source approvals are made subject to continuing production of materials meeting the Specifications. Where this condition is not met, the approval of any source may be withdrawn by the County Engineer at any time.

#### **GP-6.03      APPROVAL OF PLANTS AND SHOPS**

Immediately upon receipt of the Contract Notice to Proceed, the Contractor shall submit in writing, for the County Engineer's approval, the location and ownership of plants or fabricating shops at which materials for the Project will be processed.

The County Engineer will inform the Contractor of acceptability of proposed plants or shops as soon as an evaluation can be made. No material is to be shipped from these sources until approval has been given.

Plant or shop approvals are made subject to continuing production of materials meeting the Specifications. Where this condition is not met, the approval of any plant or shop may be withdrawn by the County Engineer at any time.

#### **GP-6.04      SAMPLES, TESTS, CITED SPECIFICATIONS**

## **CONTROL OF MATERIAL**

## **GP-6-2**

All materials used will be inspected, sampled and tested in accordance with these requirements and others as are set forth elsewhere in these Specifications or in the Special Provisions in which particular reference is made to a specific material. For Capital Improvement Projects, unless otherwise designated, tests will be made in accordance with the most recently published cited standard, tentative or interim methods of AASHTO, ASTM or others which are current on the date of advertisement for bids. These tests will be made by and at the expense of the County, unless otherwise specified.

Acceptance testing by the County as described here and elsewhere is not considered as a replacement for control testing conducted by the Contractor or manufacturer producing materials for the Contractor. When the Contractor or manufacturer is not providing adequate control testing facilities in the Contractor or manufacturer's own behalf, the County Engineer may refuse to carry out resampling and testing of materials which have been shown to be defective by normal sampling and testing routines. The County Engineer may also refuse to resample and test defective materials until and unless corrective action has been taken by the Contractor or manufacturer.

### **GP-6.05 CERTIFICATION OF COMPLIANCE**

The County Engineer may permit use before sampling and testing of certain materials or assemblies accompanied by Certificates of Compliance stating that such materials or assemblies fully comply with requirements of the Contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered must be accompanied by a Certificate of Compliance in which the lot is clearly identified.

Materials or assemblies used on the basis of Certificates of Compliance may be sampled and tested at any time and if found not in conformity with Contract requirements will be subject to rejection whether in place or not.

The form and distribution of Certificates of Compliance will be as approved by the County Engineer.

The County Engineer reserves the right to refuse permission for use of materials or assemblies on the basis of Certificates of Compliance.

### **GP-6.06 PLANT AND FIELD LABORATORIES**

At proportioning, batching or mixing plants, the Contractor shall provide a plant laboratory in which to house and use the equipment necessary to conduct the tests required. The laboratory shall generally comply with the requirements of the MD DOT SHA Specifications. Adequate facilities must be available to supply water necessary for performance of any tests that may be required.

Approval of a plant for proportioning, batching or mixing will be contingent upon availability of a plant laboratory such as described above.

### **GP-6.07 PROJECT CONTROL TESTING**

Materials from approved sources, plants, or shops will be subjected to control tests by the County Engineer at locations and frequency as the County Engineer deems appropriate.

The point or points of sampling will be those points at which required physical or chemical properties are to be met. It is intended that insofar as is practical these points will be in the product process just before inclusion into the Work or into combination with other materials. It is also intended that sampling and testing by the County Engineer be conducted in a manner and at points to minimize interference with maintaining an efficient schedule by the Contractor, however the Contractor shall schedule the Contractor's operation so as to allow adequate time for sampling and testing by the County Engineer. Where the nature of the Work precludes the attainment of both of these ends simultaneously, the County Engineer will designate points of sampling in a manner to insure that the Specifications are met.

While it is required that all materials will conform to specified values for all properties, the County Engineer may designate different points of sampling and different sampling intervals for separate characteristics of any material.

The Contractor shall assist the County Engineer in sampling of materials, make provision for safe and reasonable access, and allow the County Engineer sufficient time to coordinate and make appropriate tests.

The County Engineer may elect, where possible, to sample and test lots of material at the point of manufacture. In this case, lots may be given approval, and where practical, so marked by the County Engineer. This procedure assumes that consistent production and appropriate storage, handling and shipping practices will be maintained by the manufacturer, hauler and the Contractor. Such approval does not preclude subsequent inspection, sampling, and testing of materials at the job site with acceptance or rejection being predicated on results of these later procedures.

#### **GP-6.08      STORAGE AND HANDLING OF MATERIALS**

Materials shall be stored to assure preservation of their quality and acceptability for the Work. Stored materials, even though approved before storage, may again be inspected before their use. For Capital Improvement Projects stored materials will not be paid for until installed in accordance with the Contract Documents. Stored materials shall be located to facilitate prompt inspection. Approved portions of the right-of-way or Project site may be used for storage purposes and placing of the Contractor's plant and equipment; such storage areas must be restored to original condition by the Contractor at the Contractor's expense. Any additional space required must be provided by the Contractor at the Contractor's expense.

#### **GP-6.09      UNACCEPTABLE MATERIALS**

- 6.09.1      Materials represented by samples taken and tested in accordance with the specified test and failing to meet required values shall be considered to be defective regardless of prior tests or approvals.
- 6.09.2      Unless otherwise allowed by the County Engineer as set forth below, defective materials will be removed from the site with any tags, stamps or other markings implying conformance with specifications removed or obliterated.
- 6.09.3      Where defects can be corrected, the Contractor may propose corrective action in accordance with the manufacturer's recommendation or by other means as the Contractor deems appropriate to the County Engineer. The County Engineer may

## **CONTROL OF MATERIAL**

**GP-6-4**

approve the corrective action but does not assume responsibility for the success thereof. Retests may be made to determine acceptability of the material after corrective measures have been taken.

6.09.4 The cost of replacing, correcting and/or removal of defective material will be the responsibility of the Contractor.

6.09.5 The cost of repairing or replacing other materials damaged by the installation, correction, and/or removal of defective materials will be the responsibility of the Contractor.

## **GP-6.10 COUNTY FURNISHED MATERIAL**

The Contractor shall furnish all materials required to complete the Work, except those specified to be furnished by the County. Materials furnished by the County will be delivered or made available to the Contractor at the point or points specified in the Special Provisions. For Capital Improvement Projects the cost of handling and placing all materials, after delivery to the Contractor, shall be considered as included in the Contract price for the item in connection with which they are used.

The Contractor will be held responsible for all material delivered to the Contractor, and deductions will be made from any monies due the Contractor to make good any shortages and deficiencies, from any cause whatsoever, for any damage which may occur after such delivery, and for demurrage charges.

In cases where materials are supplied by the County and incorporated in the Contract Work by the Contractor, materials inspection and acceptance will not be a prerequisite for acceptance of the final product as the product pertains to these items.

## **GP-6.11 FIELD TEST REPORTS**

Field Test Reports shall be submitted to the County with the following information:

6.11.1 Tests results shall be categorized as follows:

- grading
- drainage
- roads
- stormwater management
- water and sewer

6.11.2 Test reports shall be supplemented with the following:

- test locations plan(s).
- soil and laboratory test results ( moisture density relationship curves with zero air voids curves, Atterberg Limits, gradation curves, etc.).
- project name and Charles County PGM #.

6.11.3 General Notes:

- a. The County shall retain the ability to ask for additional testing during construction if needed.

- b. Test results shall be summarized and submitted every two weeks to Charles County as construction progresses. One week prior to the placement of base asphalt, all test results for any work within the County right-of-way shall be submitted for review and approval by the County. Also, base asphalt test results, including core thickness, compaction results, gradation and asphalt content, shall be submitted, reviewed, and approved by the County prior to placement of surface asphalt.
- c. For Commercial - Industrial - Apartment entrances which do not require auxiliary lanes, the base and surface asphalt test results may be submitted simultaneously upon completion of asphalt placement.
- d. Proofroll shall be performed on subbase and shoulder materials.

END OF SECTION